

REMARKS

A. Claim 15 is not indefinite under 35 U.S.C. §112, 2d paragraph.

Claim 15 stands rejected on 35 U.S.C. §112, 2nd paragraph grounds as being indefinite for reciting “a reduced amount” of a glycolytic enzyme without specifying the metes and bounds of the “reduced amount.” The Action also bases this ground of rejection on whether the amount of the enzymes are reduced by reducing gene expression or reducing gene product activity.

Applicants have amended the claim to overcome this ground of rejection. Support for these amendments can be found in the application as filed, specifically at page 5, lines 3-11:

In another embodiment the cell has reduced pyruvate decarboxylase activity or reduced alcohol dehydrogenase activity. For example, the cell can lack all pyruvate decarboxylase activity. The reduced pyruvate decarboxylase activity can be due to a disrupted genetic locus, where the locus normally has the nucleic acid sequence that encodes pyruvate decarboxylase. Alternatively, the cell could contain an antisense molecule, such as a ribozyme, that corresponds to an endogenous nucleic acid sequence, where the antisense molecule reduces the pyruvate decarboxylase activity. The cell can also contain an additional exogenous nucleic acid molecule that functions as a killer plasmid.

And on page 17, line 7 through page 18, line 1:

Yeast cells within the scope of the invention also can have reduced enzymatic activity such as reduced pyruvate decarboxylase and/or alcohol dehydrogenase activity. The term “reduced” as used herein with respect to a cell and a particular enzymatic activity refers to a lower level of enzymatic activity than that measured in a comparable yeast cell of the same species. Thus, a yeast cell lacking pyruvate decarboxylase activity is considered to have reduced pyruvate decarboxylase activity since most, if not all, comparable yeast cells have at least some pyruvate decarboxylase activity. Such reduced enzymatic activities can be the result of lower enzyme concentration, lower specific activity of an enzyme, or combinations thereof. Many different methods can be used to make a yeast cell having reduced enzymatic activity. For example, a yeast cell can be engineered to have a disrupted enzyme-encoding locus using common mutagenesis or knock-out technology. See, *Methods in Yeast Genetics* (1997 edition), Adams, Gottschling, Kaiser, and Stems, Cold Spring Harbor Press (1998). Alternatively, antisense technology can be used to reduce enzymatic activity. For example, a yeast cell can be engineered to contain a cDNA that encodes an antisense

molecule that prevents an enzyme from being made. The term “antisense molecule” as used herein encompasses any nucleic acid molecule that contains sequences that correspond to the coding strand of an endogenous polypeptide. An antisense molecule also can have flanking sequences (e.g., regulatory sequences). Thus, antisense molecules can be ribozymes or antisense oligonucleotides. A ribozyme can have any general structure including, without limitation, hairpin, hammerhead, or axhead structures, provided the molecule cleaves RNA.

Yeast cells having a reduced enzymatic activity can be identified using any method. For example, a yeast cell having reduced pyruvate decarboxylase activity can be easily identified using common methods. See, Ulrich, *Methods in Enzymology* 18:109-115 (1970).

Applicants respectfully contend that these amendments overcome the asserted grounds of rejection, and request that the Examiner withdraw this ground of rejection in view of these amendments.

B. The claims are not anticipated by the cited reference.

The pending claims stand rejected on 35 U.S.C. §102(e) grounds over the disclosure of U.S. Patent No. 6,485,947. Specifically, the Examiner points to the disclosure found at columns 28-29 of the ‘947 patent as providing an anticipating disclosure.

Without acceding to the rationale for the rejection set forth in the Action, Applicants respectfully submit herewith a declaration by the common inventor, Dr. Rajgarhia pursuant to 37 C.F.R. §1.132. Applicants respectfully contend that this declaration removes the cited reference as prior art and that this ground of rejection is thus traversed. Accordingly, Applicants respectfully request that the Examiner withdraw this ground of rejection.

CONCLUSION

It is believed that all requirements of patentability are fully met, and that the claims are free of the prior art. Allowance of the claims is thereby respectfully solicited.

If the Examiner in charge of this application believes it to be helpful, he or she is invited to contact the undersigned attorney by telephone at (312) 913-0001.

By:

Respectfully submitted,
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